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AMENDMENTS TO THE CLAIMS

1. (Canceled)

2. (Currently Amended) The method of claim 3 [[1]] wherein said SOP of said periodically changing polarization-scrambled optical signal is distributed substantially uniformly over said entire Poincaré sphere surface during each said time period.

3. (Currently Amended) ~~The method of claim 1 further comprising the steps of:~~ A method of polarization-scrambling an incoming optical signal, comprising the steps of:

causing a variation of the state of polarization (SOP) as a function of time for an incoming optical signal that has an unknown SOP to produce a polarization-scrambled optical signal;

periodically changing said SOP of said polarization-scrambled optical signal with time, such that said periodically changing polarization-scrambled optical signal covers approximately an entire Poincaré sphere surface during each time period of said periodic changing, over a plurality of periods;

propagating said periodically changing polarization-scrambled optical signal through a fiber-optic transmission link that contains polarization dependent loss (PDL);

producing a periodic variation as a function of time of the optical signal power of said polarization-scrambled optical signal propagating through said fiber-optic transmission link; and

measuring said optical signal power variation in real time.

4. (Original) The method of claim 3 wherein said real-time measured optical signal power variation is selected from the group consisting of peak-to-peak optical signal power variation and root-mean-square optical signal power variation.

5. (Original) The method of claim 3 wherein said optical signal power variation is measured using a photo-detector.

6. (Original) The method of claim 3 wherein said fiber-optic transmission link contains at least one component selected from the group consisting of optical fibers and optical amplifiers.